

Work Order ID 114541

March-10-14 10:27:04 AM

114541

Page 1

Item ID: D4857-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: WiperDeflector
Start Date: 3/10/14 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 3/10/14 Req'd Qty: 1.00 ***1*** Customer:
Reference: rework - per ecn14-516

Approvals: Process Plan: U Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4857	C

105 0.00

105

Small Fab

Small Fab

Memo

PULL FROM STK:
1 X D4857-1 B109193
REWORK TO REV.C PER ECN14-516
USING DT 10028

0.00

120

QC5- Inspect part completeness to step on W/O

0.00

DAS

16

9-89

14/03/13

120

QC

Quality Control

Memo

0.00

125 Hand finishing - touch up w/ primer holes internally see attached

126

130

130

Packaging

Packaging

DAS

16

9-89

14/03/13

Identify as per dwg & Stock Location: _____

0.00

Memo

RE-IDENTIFY USING NEW B/N

0.00

Ship

FF

14-03-12

FF

cl 14-03-12

DAS

06

9-89

MAR 18 2014

Work Order ID 114541

March-10-14 10:27:04 AM

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Page 2

Item ID: D4857-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: WiperDeflector

Start Date: 3/10/14 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 3/10/14 Req'd Qty: 1.00 *1*

Customer:

Reference: rework - per ecn14-516

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan
Code Accept Reject Reject Insp.
Qty Qty Number Stamp

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

MLJ 14-03-18

14-03-18

Picklist Print

March-10-14 10:27:03 AM

Page 1

Work Order ID: 114541

114541

Parent Item: D4857-1

D4857-1

Parent Item Name: WiperDeflector

Start Date: 3/10/14

Required Date: 3/10/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 13.10.18 DD VERIFIED BY:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4857-1

Manufactured No

Each

17.0000

1

D4857-1

WiperDeflector

Location

Loc Qty

Loc Code

ST228

17

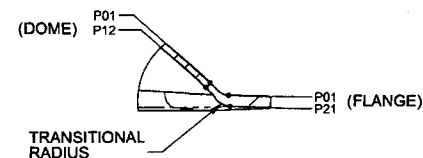
109193

7

109253

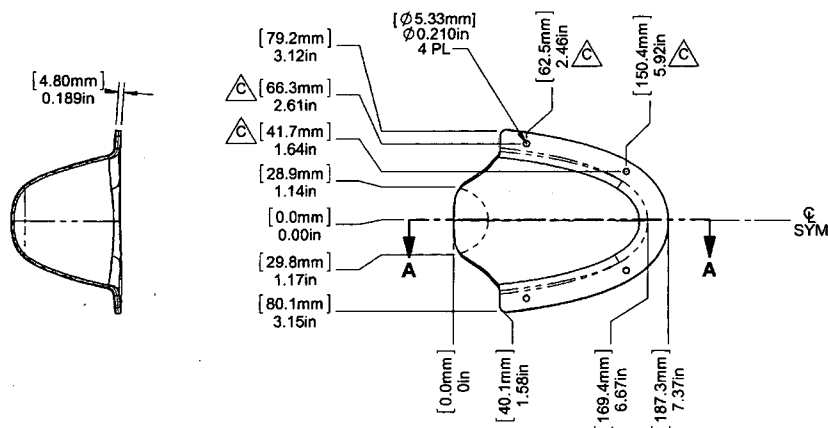
10

J *11-03-10*



SECTION A-A
SCALE 1X

DETAIL B
SCALE 8X



D4857-1 WIPER DEFLECTOR

NOTES:

- NOTES:**
- ① MATERIAL: KEVLAR #285/353 4H SATIN, EPOXY PREPREG, 250 °F CURE, 40% R/C
 - ② MATERIAL: CARBON FIBER PREPREG, ALDILA PREPREG SYSTEM 3K2X2-FR250-204/40 T300,
 - ③ MATERIAL: ALDILA #120 E-GLASS AR250 WITH 48% RC;
 - ④ FINISH: PRIMER IAW MIL-P-85582, 2-7 MIL MAX,
 - ⑤ TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - ⑥ UNITS: INCHES UNLESS OTHERWISE NOTED, ALL METRIC DIMENSIONS ARE REFERENCE DIMENSIONS.
 - ⑦ BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - ⑧ IDENTIFICATION: BAG AND IDENTIFY WITH DART P/N D4857-1, AGUSTA P/N "TBD", REVISION AND BATCH NUMBER AS PER QSI 044 METHOD 6.7
 - ⑨ WEIGHT: 0.35 lbs (.15 kg)
 - ⑩ PART DIMENSIONS CONTROLLED BY CAD MODEL FILE D4857-1-c.IGES
 - ⑪ SEE PAGE 2 FOR LAYUP SCHEDULE. MANUFACTURE IAW MPP 145. CURE 250 °F FOR 4 HOURS.

114541
MIL-P-23377J

RELEASED

2014 FEB 25 *UP*
ECN 14-516

C	ADDED 4 MOUNTING HOLES	DW	13.12.09
B	REVISED BOM, DRAWING VIEWS, NOTES	PB	13.08.13
A	NEW RELEASE	DB	13.05.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	VS	DRAWING NO.	REV. C
MFG. APPR.	EPDMA	D4857	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	WIPER DEFLECTOR	NTS
DATE	13.12.09	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMERCIAL TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD	

Linda Lacelle

From: Dominick Consalvi <dconsalvi@carbonbydesign.com>
Sent: March-10-14 3:27 PM
To: Linda Lacelle
Cc: Jean-Luc Menard; David Shepherd; Mike Petsche
Subject: RE: D4857-1 wiper deflectors
Signed By: dconsalvi@carbonbydesign.com

That's not a problem it would be helpful if the drawing called out that the holes should be primed internally.

Sincerely,

Dominick Consalvi
Partner / ITAR EO

Carbon by Design - Aerospace Systems
760-643-1300 x 106

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From: Linda Lacelle [<mailto:llacelle@dartaero.com>]
Sent: Monday, March 10, 2014 12:19 PM
To: Dominick Consalvi
Cc: Jean-Luc Menard; David Shepherd; Mike Petsche
Subject: D4857-1 wiper deflectors
Importance: High

Hi Dominick,
After drilling these, is there something you do to clean or patch up the inside of the holes? Do we touch up with primer?
Thx

Linda Lacelle
Production manager

Linda Lacelle

From: Dominick Consalvi <dconsalvi@carbonbydesign.com>
Sent: March-11-14 9:56 AM
To: Linda Lacelle
Cc: Jean-Luc Menard; David Shepherd; Mike Petsche
Subject: RE: D4857-1 wiper deflectors
Signed By: dconsalvi@carbonbydesign.com

That should not be a problem.

Sincerely,

Dominick Consalvi
Partner / ITAR EO

Carbon by Design - Aerospace Systems
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From: Linda Lacelle [<mailto:llacelle@dartaero.com>]
Sent: Tuesday, March 11, 2014 4:49 AM
To: Dominick Consalvi
Cc: Jean-Luc Menard; David Shepherd; Mike Petsche
Subject: RE: D4857-1 wiper deflectors

Thx Dominick. Your primer is MIL-P-85582, can we re-prime with our MIL-P-23377J ?
Thx
Linda

From: Dominick Consalvi [<mailto:dconsalvi@carbonbydesign.com>]
Sent: March-10-14 3:27 PM
To: Linda Lacelle

Cc: Jean-Luc Menard; David Shepherd; Mike Petsche
Subject: RE: D4857-1 wiper deflectors

That's not a problem it would be helpful if the drawing called out that the holes should be primed internally.

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Dominick Consalvi

Partner / ITAR EO

Carbon by Design - Aerospace Systems

760-643-1300 x 106

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Cc: Jean-Luc Menard; David Shepherd; Mike Petsche

Subject: D4857-1 wiper deflectors

Importance: High

Hi Dominick,

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Thx

Linda Lacelle

Production manager

Dart Aerospace

Linda Lacelle

From: lmcclelland@aviall.com
Sent: March-11-14 9:00 AM
To: Linda Lacelle
Subject: mil prf 85582
Attachments: 10PW20-4 Primer.pdf

Good morning - attached shows that product 10PW20-4 meets requested mil spec.

Price is 198.99 per kit, 0 stock, lead time 3-4 weeks

Thank you

Laura McClelland
Sr. Customer Service Rep.
Aviall
7425 Tranmere Drive, Unit 2
Mississauga Ontario L5S 1L4
Phone: 905-676-1695
Fax: 905-676-9046
Cisco: 843012

As of today, please send quotes and orders to the new email address: toronto@aviall.com

Any Aviall quote, acknowledgement or acceptance of your purchase order is made subject to Aviall's Terms and Conditions of Sale. You agree that Aviall's Terms and Conditions of Sale replace and supersede your proposed terms and conditions for all purposes and your acceptance of such terms is evidenced by you continuing to go forward with this order after receipt of this stamped notice. Go to www.aviall.com and click on Terms & Conditions for a copy of such terms.

From: Linda Lacelle <llacelle@dartaero.com>
To: "Laura McClelland (lmcclelland@aviall.com)" <lmcclelland@aviall.com>,
Date: 03/11/2014 07:43 AM
Subject: rfq

Hiya!

Could you pls advise P & D on MIL-P-85582 primer?

Merci!!

Linda Lacelle

Production manager

Dart Aerospace

10PW20-4 Water Reducible Epoxy Primer

Product Group

Epoxy primer

Characteristics



Product
Information

This chemically cured, water reducible epoxy primer is designed to provide corrosion and chemical resistance over aluminum substrates. It may be topcoated with epoxy or polyurethane.

Components



Curing Solution
Thinner

Curing Solution: ECW-104
Thinner: DI water

Specifications



Qualified
Product List

EADS (CASA)
Lockheed Martin
US Military

Z-12.141
G37.5422
MIL-PRF-85582 Ty I, CI C2

The complete Akzo Nobel Aerospace Coatings qualified product list (QPL) can be found at: www.anac.com

Surface Conditions

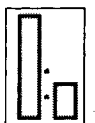


Cleaning

- Surface pretreatment is an essential part of the painting process
- Prepare surface per MIL-PRF-85582.

Instruction for Use

- Stir or Shake till all pigment is uniformly dispersed before adding hardener / curing solution.
- Pour the quart of ECW-104 curing solution into the gallon can of 10PW20-4 base. Place on shaker for two minutes, then remove. Check viscosity. If necessary, further reduce the mixture with DI water additions of 5% by volume of mixed coating up to a maximum of 15%. DO NOT add more than this amount. Allow the reduced material an induction time of 20 minutes before using. The material is now ready for spray application.



Mixing Ratio
(volume)

3 parts
1 part

Base 10PW20-4
Curing Solution ECW-104
Thinner DI water (15% by volume maximum)



Induction Time

20 minutes

10PW20-4 Water Reducible Epoxy Primer



Initial Spraying
Viscosity
(21°C/70°F)

37 – 60 seconds (reduced 10% by volume with DI water) ISO-Cup 4
20 – 26 seconds (reduced 10% by volume with DI water) Zahn-Cup
Signature #2
18 - 25 seconds (reduced 10% by volume with DI water) #4 Ford

The Zahn cup and ISO cup data are provided as application guidelines only. The quality control requirement per MIL-PRF-85582 is the Ford cup viscosity.



Pot Life
(25°C/77°F)

4 hours at 77°F (25°C)



Dry Film
Thickness
(DFT)

15 – 25 micron (µm)
0.6 – 1.0 mils

Application Recommendations

Standard suction or pressure spray equipment



Conditions

Temperature: 15 – 35°C
59 – 95°F
Relative Humidity: 35 – 75%



Equipment

Air 1.2 – 1.4 mm nozzle orifice
HVLP 1.2 – 1.4 mm nozzle orifice



Number of
Coats

Spray a single uniform wet coat to recommended dry film thickness.



Cleaning of
Equipment

Flush equipment with water first. Then use TR-19 to clean residue from equipment. If material dries on equipment, omit water flush and use TR-19 only.



Note

The way of application, skills and experiences of the painter and surrounding conditions (temperature, relative humidity, airspeed) significantly affect the final appearance and dry film thickness. When using the product for the first time it is strongly recommended to apply some test panels first.








Physical Properties



Drying Times
(25°C/77°F)

Full cure	14 days (90% cure in 7 days)
Dry to topcoat	2 hours
Dry hard	6 hours
Force cure	Allow to flash dry at 55°-80°F (13°-27°C) for a minimum of one hour before force curing at 145°-155°F (63°-68°C) for 24 hours.

10PW20-4 Water Reducible Epoxy Primer

	Theoretical Coverage	20.3 m ² per liter ready to apply at 18 µm dry film thickness 826 ft ² per US gallon ready to apply at 0.7 mil dry film thickness
	Dry Film Weight	39.8 g/m ² /25 micron 0.008 lbs/ft ² /1.0 mil
	Volatile Organic Compounds	Max 340 g/l admixed Max. 2.8 lb/gal
	Gloss (60°)	<10 GU
	Color	Light green
	Flash-point	10PW20-4 93°C / 200°F ECW-104 23°C / 74°F
	Storage	Store product under dry conditions and at a temperature between 5 – 38°C (35 – 115°F).
	Shelf life 5 - 38°C (35 - 115°F)	Shelf-life of this product is one year. (12 months from date of manufacture).

Safety Precautions

Comply with all local safety, disposal and transportation regulations. Check the Material Safety Data Sheet (MSDS) and label of the individual products carefully before using the products. The MSDSs are available on request.

Warranty

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